Applicant(s):

Johannes Bruijns 10/023,166

Serial No.: For:

Method of analyzing a data set comprising a tubular structure

Filed: Examiner: December 18, 2001 Dang, Duy M

Group Art Unit:

2627

Attorney Docket No.: NL000772

## IN THE CLAIMS:

Please amend the claims according to the following:

- 1. (Currently Amended) A method of analyzing an object data set which comprises points in a multi-dimensional space and in which a tubular structure occurs, saidthe method comprising the following steps:
- a) choosing a starting position in or near the a tubular structure;
- b) deriving a cutting plane through the tubular structure at the a starting position;
- c) determining a number of points forming part of the <u>a</u> surface of the tubular structure in the <u>a</u> vicinity of the starting position, and;
- d) calculating a gradient to the surface for each of saidthe points; characterized in that the method also comprises the steps of:
- e) determining for each point a vector from the <u>a</u> center of the tubular structure to said the point;
- f) determining the an angle between said the vector and the gradient at said the point;
- g) adding said the point to a selection of points if said the angle is equal to or smaller than a predetermined ceiling value;
- h) using said-the selection of points to calculate an orientation for the cutting plane such that the <u>a</u> direction thereof is as parallel as possible to the <u>a</u> longitudinal axis of the tubular structure at the starting position, and
- i) repeating the steps a) through h) for a new starting position along the tubular structure if necessary.
- 2. (Original) A method as claimed in claim 1, also comprising the steps of: defining a sphere, which is at least partially intersected by the tubular structure, and performing the steps e) through g) only for points lying inside the sphere.
- 3. (Previously Amended) A method as claimed in claim 1, wherein the steps e) through g) are performed only for points lying at a predetermined maximum distance from the cutting plane.

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A computer programreadable medium for carrying out the 4. (Currently Amended) method as claimed in claim 1.